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# CONSTRUCTING AN INNOVATIVE MODEL OF ENTREPRENEURSHIP EDUCATION THROUGH REGIONAL COLLABORATION

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## ABSTRACT

*The purpose of this article is to discuss a new self-funding model of collaborative, regional entrepreneurship education among colleges and universities called the Entrepreneurship Education Consortium (EEC). The article will discuss the following: (1) the development and objectives of a non-profit entity among seven colleges and universities; (2) initiatives to educate students about entrepreneurship; (3) stakeholders involved in the process; (4) funding issues; (5) empirical findings that support the success of the EEC; (6) a discussion on how the model can be replicated; and (7) lessons learned and limitations.*

## INTRODUCTION

This purpose of this article is to introduce others to a successful, innovative, self-funding model of entrepreneurship education through a collaborative effort among seven universities and colleges in Northeast Ohio. Ashland University, Baldwin-Wallace College, Case Western Reserve University, Cleveland State University, John Carroll University, Kent State University, and The University of Akron created a new 501(c) (3) non-profit corporation called the Entrepreneurship Education Consortium (EEC) <http://www.eecneohio.com/acorn.php?page=home> to stimulate entrepreneurial activity within the region.

The following article will discuss the history and process of developing the consortium and its objectives. We also describe the two primary initiatives that the consortium is involved with and the stakeholders that are involved in these activities. Finally, funding issues recognition, assessment, evaluation, and successes are discussed towards the end of the article.

It is the intent of the authors to have this serve as a benchmark model for others in the development of similar regional, collaborative, organizations to foster entrepreneurship education.

We review a number of lessons learned from starting and running this consortium And indicate some pitfalls to avoid in similar ventures.

### **IMPORTANCE**

The U.S. is at war, gas, commodities, and inflation are skyrocketing, job losses are increasing, the dollar has depreciated enormously, and real estate is at its worst state since the Great Depression. All of these are having a significant negative impact on the funding of higher education all over the U.S. The economic environment of Northeast Ohio has been especially hard hit by the economic turmoil over the past few decades with the elimination of many manufacturing facilities. Hundreds of thousands of jobs have been lost. We are facing brain drain as well as the scarcity of quality high paying jobs in the region.

In the past few years, Northeast Ohio has suffered more job loss, less job creation, and higher unemployment rates than the national average. A recession in 2001 impacted Northeast Ohio more deeply and longer than other areas of the nation with a significant loss of jobs, especially in the manufacturing sector. Economic growth between the years of 1995–2004 in Northeast Ohio, as measured by per capita income, employment growth, gross metropolitan product (GMP) (GMP measures value-added output produced in a region and is a counterpart to the gross domestic product measure for national output) and per employee output, have all lagged behind national averages. Employment growth, GMP, and per employee production were all below national averages and ranked Northeast Ohio near the bottom against other Midwest metro areas.

Furthermore, recent data indicates that 35 percent of the students receiving college degrees from Ohio institutions left the state. In 2001 alone, Ohio lost nearly 17,000 graduates from Ohio schools. Ohio was well below the national average, ranking 25<sup>th</sup> among the other states in retaining college graduates (Charleston, 2003). This loss of students created a well publicized statewide concern over “brain drain” and certainly raised a concern among the entrepreneurship program directors.

In its 2006 Development Report Card (DRC), the Corporation for Enterprise Development (CFED) gave the State of Ohio a “C” for “entrepreneurial energy; ranking it 34<sup>th</sup> among the other states in the country (Corporation for Enterprise Development, 2006). This ranking in large part was driven by new company starts and job creation by startup companies in Ohio. When compared against a sample of other metropolitan areas in the country, most of the metropolitan areas in Northeast Ohio rank in the bottom third for the number of small businesses employing less than 20 employees.

All of these factors led up to entrepreneurship program directors meeting three years ago to examine opportunities to collaborate. After two meetings, we realized that we could accomplish much more together than individually. As a result we formed a separate non-profit entity away from our schools called the Entrepreneurship Education Consortium (EEC). The EEC was incorporated

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to assist in the development of student entrepreneurs who will remain in the region after graduation. These students will form either new enterprises or work for existing businesses, create new jobs for the labor force, and generate new economic activity for the region. The economic future of our region will be shaped by students like these. In essence the EEC is planting the seeds for the future of Northeast Ohio and the backbone of the economic climate for the U.S.

## LITERATURE REVIEW

The importance of entrepreneurial activity to the economy is well founded, particularly in the areas of economic growth and job creation (Gibb, 1996; Reynolds, Camp, Bygrave, Autio, & Hay, 2001). Colleges and universities across the United States have been actively engaged in the study of entrepreneurship and the development of entrepreneurship curriculum in recent years (Vesper & Gartner, 1997; Klofsten, 2000; Solomon, Duffy, & Tarabishy, 2002; Katz, 2000; Henry, Hill, & Leitch, 2003; Steyaert, 2003).

The field of entrepreneurship has been one of the hottest areas of study in higher education at colleges and universities throughout the world. Several researchers (see Finkle & Deeds, 2001; Solomon et al., 2002; Katz, 2003; Finkle, 2005; Finkle, Kuratko, and Goldsby, 2006; Finkle, 2007; Solomon, 2007) have done research on various aspects of entrepreneurship education. Finkle & Deeds (2001), Finkle (2005), Finkle, (2007) examined the trends in the entire population of entrepreneurship positions and faculty in the world. Finkle, Kuratko, and Goldsby's (2006) research focused on the entire population (146) of U.S. centers of entrepreneurship. More recent evidence (see Finkle, Menzies, Goldsby, and Kuratko, 2008) shows that the number of U.S. Centers for entrepreneurship has grown from 146 in 2004 to 208 in 2008, a 36% increase.

Compared to many other disciplines, the discipline of entrepreneurship is in its infancy, with no standard framework or agreed upon best practices for entrepreneurial education (Solomon, 2007; Brockhaus, Hills, Klandt, & Welsch, 2001; Fiet, 2001a; Fiet, 2001b).

There is even some debate among scholars as to the wisdom of teaching students to become entrepreneurs in light of current teaching pedagogy (Adcroft, Willis, & Dhaliwal, 2004; Fiet, 2001; Sexton & Upton, 1987; Hynes, 1996). However, there is sufficient empirical data to conclude that students can be taught entrepreneurial competencies (Katz, 2003; Meyer, 2001; Gorman, Hanlon, & King, 1997; Anselm, 1997). Kuratko (2003) concludes that: "the question of whether entrepreneurship can be taught is obsolete".

Scholars have written much on what should be taught in entrepreneurial education. A review of the literature shows that entrepreneurial education should include skill-building courses in negotiations, leadership, new product development, creativity and innovation (McMullan & Long, 1987; Vesper & McMullen, 1988).

Opportunity identification has also been identified as a critical entrepreneurial skill that should be included in entrepreneurship curriculum. (Shane & Venkataraman, 2000; Long &

McMullan, 1984; Hills, Lumpkin, & Singh, 1997; Hindle, 2004). Educating students on entrepreneurship and how to become more entrepreneurial are also significant components of entrepreneurial education (Rae, 2000). Understanding the role of networks, clients, and other stakeholders has been identified as important entrepreneurial concepts (Gibb, 1993; Taylor & Thorpe, 2004).

Many entrepreneurship courses and curriculum are designed to encourage and stimulate new business start-ups (Vesper & Gartner, 1997; Leitch & Harrison, 1999; Peterman & Kennedy, 2003). Some of the more common teaching methods for teaching entrepreneurship courses in recent years include the creation of business plans, class discussions, case studies, feasibility studies, and guest lecturers (Solomon, 2007).

Gibb (2002) and Sogunro (2004) have found that traditional teaching methods such as lectures are less effective in teaching entrepreneurial principles. Learning by doing seems to be the new theme in entrepreneurship education (Gorman, 1997; Fiet, 2000a; Fiet, 2000b). Venkataraman (2004) argues that risk capital combined with commercial ideas, results in a few successful entrepreneurs who become role models for their peers. It is important to “hunt for” these entrepreneurs as they are driving forces in the market economy--the engine in the market economy (Steyaert & Katz, 2004: 187).

### **ENTREPRENEURSHIP EDUCATION CONSORTIUM**

The Entrepreneurship Education Consortium (EEC) is a self-funded non-profit 501 (c) (3) entity that was incorporated by representatives of entrepreneurship programs at seven universities and colleges in Northeast Ohio (Ashland University, Baldwin-Wallace College, Case Western Reserve University, Cleveland State University, John Carroll University, Kent State University, and The University of Akron). Exhibit 1 shows the founding Board of Directors of the EEC.

The EEC was founded to promote both the concept and the reality of entrepreneurship among college students of all disciplines. Beyond imparting the necessary classroom fundamentals, it encourages student exploration of new business concepts. Where feasible, the EEC facilitates the entrepreneurial process up to the interface for project funding which leads to actual startup of new enterprises.

The EEC educates top students at our respective institutions who are most likely to become entrepreneurs and remain in the region after graduation. These students learn about entrepreneurship and choose to either create new enterprises, which will create new jobs and generate wealth for the region or become entrepreneurs within existing organizations. The economic future of our region will be shaped by the students we educate.

<b>Exhibit 1: Founding Board of Directors of the Entrepreneurship Education Consortium</b>	
	Phil Bessler, Baldwin Wallace College
	Stephen Cook, The University of Akron
	Scott Fine, Case Western Reserve University
	Dr. Todd A. Finkle, The University of Akron
	Dan Fox, Ashland University
	Mark Hauserman, John Carroll University
	Lee McMannis, Kent State University
	Julie Messing, Kent State University
	Jack Reece, Cleveland State University
	Dr. John C. Soper, John Carroll University
	Robert Stimpert, Ashland University

As the EEC began to develop its collaborative programs for the Northeast Ohio region, it sought programs that leveraged the strengths of each individual center while providing benefits to the unique culture of the entire region. An infusion of young entrepreneurs with new knowledge, skills and attitudes about entrepreneurial opportunities in Northeast Ohio will provide direct benefit to the region. With this as a guideline, the EEC began to establish its programs.

<b>Exhibit 2: Objectives of the Entrepreneurship Education Consortium</b>	
1.	Teach skills related to entrepreneurship education to students so they can learn how to think and act like entrepreneurs (including);
	Creativity, Innovation, and Idea Generation;
	Opportunity Seeking Behavior;
	Marketing Plan;
	Entrepreneurial Finance;
	Operations Management;
	Legal Issues & Intellectual Property Management;
	Ethics & Social Responsibility;
	New Product Development;
	Feasibility Analysis;
	Business Planning;
	Oral & Written Presentation Skills;
	Technology Licensure and Commercialization;
	Interdisciplinary Team Management & Teamwork skills.

<b>Exhibit 2: Objectives of the Entrepreneurship Education Consortium</b>	
2.	Create an innovative and collaborative model to teach entrepreneurship education that can be transferred to other regions throughout the world;
3.	Build an expanding network of young people interested in entrepreneurship in Northeast Ohio (NEO);
4.	Cultivate and encourage university students in NEO to create businesses and ideas in the NEO region, resulting in NEO job creation and wealth after student graduation. Teach the students to realize that they can make a difference in NEO by starting their own business;
5.	Build collaborative team experiences through group assignments and competitions;
6.	Build entrepreneurial competitiveness and an entrepreneurial passion within the student so they take this passion back to their respective universities;
7.	Inform the students of opportunities in NEO, bring down the barriers, and give them the ability to control the process and the knowledge needed;
8.	Attract investors to provide funding assistance for the entrepreneurial students to promote and build ideas;
9.	Assist the schools and the region in the development of opportunities, new ventures, jobs, and wealth;
10.	Integrate with business and government to further advance our communities;
11.	Increase the awareness of all schools and community stakeholders of the importance of entrepreneurship;
12.	Increase the regional and national visibility and success of the EEC and Northeast Ohio.

The primary objective of the Entrepreneurship Education Consortium is to assist students in the development of an in-depth understanding and knowledge of skills related to entrepreneurship so they can learn how to think and act like entrepreneurs. A complete list of the objectives of the EEC can be found in Exhibit 2.

### **INITIATIVES OF THE EEC**

To accomplish its objectives, the EEC has developed and implemented two major initiatives: 1) An annual Entrepreneurship Immersion Week for undergraduates during the summer (see [http://www.eecneohio.com/acorn.php?page=immersion\\_week](http://www.eecneohio.com/acorn.php?page=immersion_week)); 2) A regional Business Idea Competition called *LaunchTown* (see [http://www.launchtown.org/\\_index.php?page=award](http://www.launchtown.org/_index.php?page=award))

#### **Entrepreneurship Immersion Week**

Each spring, the EEC selects 35 students (5 from each school in any discipline throughout their universities) to participate in an intensive week-long entrepreneurship academy over the summer. The process of selection is very competitive. Resumes, transcripts, essays, and interviews

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are all done before final selections are made. Students must state that they intend to stay in the region after graduation.

During the program, the students learn about various aspects of creativity, innovation, and entrepreneurship by attending two sessions a day on topics such as idea generation, opportunity recognition, marketing, legal and intellectual property issues, operations and production, finances, ethics, etc. Students are taught by both academics and practitioners (e.g., entrepreneurs, financiers, etc.). A wide variety of successful entrepreneurs are brought in to discuss their success and failures.

The students live in a dormitory during the week-long experience and immerse themselves in topics and share information with each other. Each school forms a team and creates a new product or service that has not been previously presented at any other competition. At the end of the week, the teams present their idea and plan to a panel of judges for prize money. During the week, students develop life-long friendships through social activities which include attending a Cleveland Indians game, a visit to the Cleveland Federal Reserve Bank, and the Rock and Roll Hall of Fame.

To be eligible, students must be entering their junior or senior year in any major. We limit it to this age because we want students to come back to their respective universities and work together on their projects. To stimulate connectivity, the EEC has a reunion with the previous attendees.

The first Entrepreneurship Immersion Week (EIW) was conducted at Cleveland State University in August 2007. The second EIW was held at John Carroll University, August 10-15, 2008. The third EIW is scheduled for August 2009 at Kent State University.

### ***LaunchTown***

EEC entered into collaboration with *LaunchTown*, an informal group of entrepreneurs, angels, and academics, to stimulate entrepreneurial activity in the region through a business idea competition (see [http://www.launchtown.org/\\_index.php](http://www.launchtown.org/_index.php)). The competition's purpose is to generate new ideas that will eventually lead to the creation of new ventures, jobs, and wealth for the region. It is not a business-plan competition, as we wanted to attract non-business students from a wide variety of colleges and majors.

The institutions associated with the EEC each held their own local business idea competition at their respective university. The competition was open to any student from any major. The best business idea from among all of the "local" applicants was selected for presentation at the regional competition.

The final round of the competition drew people from all over the country including our keynote speaker, John Osher, a serial entrepreneur who has developed literally hundreds of consumer products, from energy saving devices to baby products, toys and candy, and household appliances. He was most popularly known as the entrepreneur who brought the "five dollar electric toothbrush" to the world. Launched as the SpinBrush, in only fifteen months, it became the top

selling toothbrush in the U.S. He started Dr. John's toothbrush company in 1999 and sold the venture to Procter and Gamble only two years later for \$460 million.

### **PREVIOUS MODELS**

As the EEC explored existing literature and best practices of other regional programs, little research and few programs existed on programs of this type. There is a regional program in St. Louis where the St. Louis Region Entrepreneurship Educators (STLREE) was formed to co-market the programs of 10 St. Louis area colleges and universities. The STLREE has a website ([www.stlree.org](http://www.stlree.org)) that provides links to each of its members programs and lists the services offered by each member program.

Texas is currently in the process of developing the "Texas Consortium of Entrepreneurship Centers" and its organizational meeting was held on May 22-23, 2008. The objectives of the proposed Texas Consortium of Entrepreneurship Centers will be to share ideas and best practices, leverage their existing programs, encourage collaborative initiatives, and increase the visibility of the contributions of their academic programs and outreach initiatives to innovation and entrepreneurship in Texas. (<http://somweb.utdallas.edu/centers/innovation/iie-TCEC.php#list>). This appears to be somewhat similar to the objectives and programs developed by the EEC.

### **STAKEHOLDERS**

The students, faculty, universities, business, entrepreneurs, and the overall community in general have become much more aware of what we are doing and the benefits to a more entrepreneurial and innovative culture and climate in which we are producing.

#### **Primary Stakeholders**

##### **Students.**

The major stakeholder group is the students who have an interest in entrepreneurship. The engrained procedure of EEC recruiting is to seek interest across campus, to reach all disciplines. The EEC provides initiatives meant to satisfy both the concept and the reality of that interest and to provide those so inclined with classes and initiatives which guide them through the initiatives and with development guidance on their plans to introduce them to stakeholders who are capable of converting the interest into an actual business. This entails exposure to the interface with funding which would allow venture formation to happen.



**EEC Student Alumni.**

A community of those students and graduates who have completed the various initiatives are also stakeholders. They are connected by Web based facilities and annual EEC-sponsored social networking gatherings in Northeast Ohio. Their invaluable feedback not only helps guide future initiatives but provides by example, a source to recruit future students to our initiatives.

**Educational Institutions.**

The committed support of the seven independent colleges and universities, which have provided the Board members of the EEC, is essential to its existence. Although varying in degree of involvement in entrepreneurship education, each of the seven universities or colleges have active programs underway across the educational spectrum, from tenure track positions, endowed chairs, joint college of business/college of science certificate programs, to graduate courses in entrepreneurship. Awareness of the entrepreneurial options for students is provided in entry level courses. A significant part of the initial year funding for the EEC, as well as access to other supportive resources came about because of the diversion of resources from other individual academic interests at these institutions to a common good.

**Entrepreneurial Community.**

Successful entrepreneurs within Northeast Ohio have provided an irreplaceable resource in inspiration, education, and mentoring. They have also acted as constructive judges for the students involved in the various initiatives. Kuratko (2005) made this point by addressing the obstacles to quality of the student entrepreneurial education as a need "...to introduce them to people who might be able to facilitate their success..." in behaving entrepreneurially.

**Secondary Stakeholders****Investment Community of Northeast Ohio.**

Angel and venture capital investors, together with their ancillary accounting and legal staffs, are at the interface with the idea development represented by the student efforts and talents. There is a competition developed within this community for access to the students and ideas which must be moderated by the EEC and the educational institutions. Although not a problem experienced to date, there is potential tension between the educational process and the self interest (profit motive) of this class of stakeholder, over such issues as intellectual property rights and meaningful student assignments.

**Innovative Large Firms.**

A logical career for the trained entrepreneurial student is also found within the modern innovative corporation. The term ‘corporate venturing’ entered the lexicon of the large corporation representing the encouragement of innovation by alternative means. Corporate venturing is widespread and creates a need for exactly the type of graduate possessing the entrepreneurial mindset: One who wishes to innovate and grow a concept and wishes not to be bound by a rigid framework of rules.

**The political/economic/civil community.**

This really includes the region as a whole and includes government at all levels, citizens, and businesses of all size. This complex relationship and recent trends relevant to the EEC are described below.

**Regional Stakeholders**

The region as a stakeholder of the EEC includes the entire business, political and civil community dependent on a successful economy. The economic benefits of achieving a critical geographic mass of technology, higher educational institutions and a new entrepreneurial mindset are well established.

The Northeast Ohio region has been economically depressed since the migration of traditional steelmaking, automotive and other heavy industries to other states or offshore. A related consequence of this trend is the “Brain Drain” of promising graduates of local colleges who move to other parts of the country.

Ohio recently passed a state economic stimulus program which allocated \$250 million dollars to subsidize industrial internship programs aimed at keeping college graduates in Ohio. This contributes to the critical mass by providing logical employment to the graduate trained in the entrepreneurial mindset.

Another subtle and unquantifiable benefit of the EEC is the strengthening of academia, business, social and civil communities. These sectors are interdependent and have a vested interest in the economic health of Northeast Ohio. To the extent that EEC initiatives bring the interests of these sectors together, it strengthens the strands.

Thus, the effectiveness of the EEC performance is governed by two factors – the internal abilities and resources of the Board itself and externally by its relations with a wide spectrum of organizations and groups – the Stakeholders.

## FUNDING

The EEC was initially funded by \$6,000 in contributions from each member's entrepreneurship center. After the formation of the entity and creation of a strategic plan, the EEC approached the Burton D. Morgan Foundation with a proposal for funding our Entrepreneurship Immersion Week. They made a commitment for three years of funding to the EEC.

The EEC has also received funding from individual and corporate sponsors. We have a designated board member who is in charge of fund-raising. The Northeast Ohio business and government communities have been very supportive by providing substantial support financially and through mentoring and the provision of significant business resources and services.

## METHODOLOGY

### Sample and Procedures

To test the effectiveness of our Entrepreneurship Immersion Week 2008, we developed a 35 question survey (see Exhibit 3) for all 35 students that participated in the event. The survey instrument was pre tested with all Board members of the Entrepreneurship Education Consortium. Appropriate changes were made based on feedback from the Board.

<b>Exhibit 3: Survey Instrument</b>	
SURVEY OF ENTREPRENEURSHIP EDUCATION CONSORTIUM'S ENTREPRENEURSHIP IMMERSION WEEK ASSESSING THE ENTREPRENEURSHIP EDUCATION CONSORTIUM'S SUMMER IMMERSION WEEK	
The purpose of this survey is to measure the student's aptitude for entrepreneurship. From this information, we will develop a data bank to determine the impact of our program on your future ability to become an entrepreneur.	
NOTE: All of your responses are strictly anonymous. Individual responses will not be seen by anyone within your organization, other schools, or entities. We will strictly prohibit the access of this data by unauthorized individuals or organizations.	
1.	Define Entrepreneurship
2.	Do you currently own a business or have you owned one in the last three years? Yes ___ No ___
3.	If so, what type(s) of business(es) and for how many years did you operate each business?

<b>Exhibit 3: Survey Instrument</b>	
4.	Do you want to start your own business before you graduate from College? Yes ___ No ___
5.	Do you want to start your own business after graduating from College? Yes ___ No ___ N/A ___
6.	If you want to start your own business after graduating from College, within how many years do you plan on starting it (in years)? _____
7.	Do you want to work for a small business (less than 500 employees) after graduating from College? Yes ___ No ___ N/A ___
8.	Do you want to work for a major corporation (500+ employees) after graduating from College? Yes ___ No ___ N/A ___
9.	Do you want to go work for your family business after graduating from College? Yes ___ No ___ N/A ___
10.	Do you want to go work for a non-profit organization after graduating from College? Yes ___ No ___ N/A ___
11.	Why did you decide to participate in this event?
12.	What are your professional goals (be specific)?
13.	Do you plan on staying and working in Northeast Ohio after graduating from college? Yes ___ No ___ N/A ___
14.	Define a business plan.
15.	On a scale between 1 (lowest) through 7 (highest) how much do you know about business plans? _____
16.	Define idea generation & opportunity recognition.
17.	On a scale between 1 (lowest) through 7 (highest) how much do you know about idea generation & opportunity recognition? _____
18.	Define a marketing plan.
19.	On a scale between 1 (lowest) through 7 (highest) how much do you know about the marketing plan? _____
20.	Define an operations plan.

<b>Exhibit 3: Survey Instrument</b>	
21.	On a scale between 1 (lowest) through 7 (highest) how much do you know about an operations plan? _____
22.	Define a financial plan.
23.	On a scale between 1 (lowest) through 7 (highest) how much do you know about a financial plan? _____
24.	Define ethics.
25.	On a scale between 1 (lowest) through 7 (highest) how much do you know about ethics? _____
26.	Define Legal Issues.
27.	On a scale between 1 (lowest) through 7 (highest) how much do you know about legal issues? _____
28.	Define staffing and management issues.
29.	On a scale between 1 (lowest) through 7 (highest) how much do you know about staffing and management issues? _____
30.	On a scale between 1 (lowest) through 7 (highest) how much do you know about making presentations of business plans to investors? _____
31.	What is your academic year? Jr. ___ Sr. ___
32.	What is your Major(s) &/or Minors?
33.	What is your age? _____
34.	What is your race? Caucasian _____ African American _____ Hispanic _____ Native Indian _____ Indian _____ Asian American _____ Other _____
35.	Male or Female (Circle One)
Thank you very much for your cooperation	

The test took approximately 15 minutes for the students to fill out. The pre test survey was sent to all of the students through e-mail approximately three days before the beginning of the Entrepreneurship Immersion Week. The same survey was used as a post test to determine the

effectiveness of the week-long immersion week. We received 33 useable responses for a response rate of 94%.

Data was broken down into three exhibits: (1) Demographics and characteristics of the students, (2) Majors of the students, and (3) Measures of students' learning, which was measured through the means of the pre test and post test answers on each topic that was taught (e.g., Business Plans, Idea Generation, Marketing Plan, Operations Plan, Financial Plan, Staffing Issues, Legal Issues, and Business Plan Presentations). T-tests were used to compare the pre test and post test means. Means were developed for each topic on a Likert scale with 1 (lowest knowledge) to 7 (highest knowledge).

## RESULTS/DISCUSSION

### Background and Demographics of Students

Exhibit 4 shows that the average student's age in the sample was 22.2 with one student's age at 47 years old. Seventy-three percent of the students were male. Thirty students were Caucasian, 2 were African American and 1 was Hispanic.

Exhibit 4: Background & Demographics of Student Participants (N=33)	
	Students
Age	22.2
Sex (Male)	73%
Race	
Caucasian	30
African American	2
Hispanic	1
Educational Background	
Senior	22
Junior	8
Sophomore	3
Own a Business	8
# Years as an Entrepreneur	29.5

Twenty-two of the students were seniors, 8 were juniors and 3 were sophomores. Eight students already owned a business within the past three years. The overall sample had 29.5 years of experience as an entrepreneur, with two students having 7 years of experience each.

### **Majors of Students**

Exhibit 5 shows the majors of the students in the program. This exhibit displays a wide variety of majors for students enrolled in EIW 2008.

<b>Exhibit 5: Major(s) of Students (N=33)</b>		
<b>Majors</b>	<b>Students</b>	<b>Percent</b>
Accounting	4	12.12%
Marketing	4	12.12%
Management	3	9.10%
Finance	2	6.06%
Accounting and Chemistry	1	3.03%
Accounting and Finance	1	3.03%
Biomedical Engineering	1	3.03%
Business Administration	1	3.03%
Communications	1	3.03%
Dance	1	3.03%
E-Business Technology	1	3.03%
Early Childhood Education	1	3.03%
Economics and International Business	1	3.03%
Economics and Philosophy	1	3.03%
English	1	3.03%
Fashion Merchandising	1	3.03%
Finance and Fashion Design	1	3.03%
Finance and Marketing	1	3.03%
Marketing Economics	1	3.03%
Marketing and Entrepreneurship	1	3.03%
Marketing and Sales Management	1	3.03%
Marketing Research	1	3.03%
Political Science and Spanish	1	3.03%

<b>Exhibit 5: Major(s) of Students (N=33)</b>		
Majors	Students	Percent
Undecided	1	3.03%
Total	33	100%

This variety of majors including Communications, Dance, English, Early Childhood Education, Fashion Merchandising, Political Science and Spanish meant that the varied backgrounds of the students led to a dynamic exchange of ideas.

### Student Evaluation of Program

To measure the effectiveness of the program, Exhibit 6 shows the results of the Pre- and Post-Test Surveys.

<b>Exhibit 6: Student Pre and Post Test Responses to Survey Questions (N=33)</b>			
	<b>Pre Test Mean</b>	<b>Post Test Mean</b>	<b>P-Values</b>
Business Plan	3.76	5.09	.000***
Idea Generation and Opportunity Recognition	3.12	5.15	.000***
Marketing Plan	3.96	5.18	.000***
Financial Plan	3.10	4.97	.000***
Operational Plan	3.47	4.47	
Ethics	5.19	5.82	.001**
Legal Issues	3.30	4.76	.000***
Staffing and Management Issues	3.47	4.64	.000***
Business Plan Presentations	3.32	5.64	.000***
Grand Mean	3.63	5.08	.000***
* p < .05 ** p < .01 *** p < .001			

A separate column was made for pretest and another for posttest. T-Tests were the run on the differences between the two means. The results show that there were significant differences at the  $p < .000$  level for every program except for one, Ethics. The mean for the students on Ethics coming into the program was the highest at 5.19. After the program was over, the Ethics mean was 5.82 or a significant difference at the  $p < .00$  level.



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## DISCUSSION

The Entrepreneurship Education Consortium (EEC) is an innovative, collaborative, regional entity that was created to educate students about entrepreneurship. Through a collaboration of representatives from entrepreneurship programs at seven universities and colleges in Northeast Ohio, the EEC is determined to make a significant impact on the region and serve as a model for other regions in the world.

The EEC is unique in the sense that it has an inter-disciplinary student body (students from all disciplines business, engineering, science, etc.); inter-disciplinary faculty (with professional experience as academicians, practitioners, and entrepreneurs); has university and community support; and has the inclusion and integration of local business community mentors and individual entrepreneurs for services and resources to students.

What makes the EEC especially unique is that it was created as a non-profit identity outside of the universities and colleges it represents. As a result, the faculty were able to do things that they might be restricted from doing at their respective schools. For example, at several of the schools, we were restricted from approaching certain foundations, corporations, or individuals. While university President's may talk up entrepreneurship, in reality, the authors have found that entrepreneurship programs are excellent ways to raise capital for their universities, but not necessarily for the entrepreneurship programs themselves.

The members of the EEC realized that these hurdles could be overcome. For example, the Burton D. Morgan Foundation only gives grants to private schools. As a result, three of the schools in the consortium were not able to receive funds from them. However, as a separate non-profit entity outside of the schools, the EEC has been able to approach the Morgan Foundation for grant funding.

### Assessment and Recognition

Our first few initiatives have been very successful. This past year we had *LaunchTown* and our second year of the Entrepreneurship Immersion Week. Both events were very successful. The empirical evidence in this article strongly supports the notion that Entrepreneurship Immersion Week was a success. The students learned significantly more information on every topic that was taught to them (see Exhibit 6). We envision ourselves continuing to innovate, educate, and grow.

Exhibit 7 shows the various forms of media attention that the EEC has received since its inception. The EEC has already appeared in 17 articles.

<b>Exhibit 7: Recognition in the Media</b>
<i>The Plain Dealer</i> . August 16, 2008. Section C, pages C1, C3. Entrepreneurship Immersion Program teaches students how to start a company. <a href="http://www.ohio.com/business/27045354.html">http://www.ohio.com/business/27045354.html</a>
<i>The Plain Dealer</i> . August 15, 2008. Taking a company from concept to reality. <a href="http://blog.cleveland.com/business/2008/08/thomas_ondreythe_plain_dealerc.html">http://blog.cleveland.com/business/2008/08/thomas_ondreythe_plain_dealerc.html</a>
<i>Akron Beacon Journal</i> , August 16, 2008, pages D1, D7, Students immersed in business. <a href="http://www.ohio.com/business">http://www.ohio.com/business</a>
<i>Akron Beacon Journal</i> , August 15, 2008, Detail of Student Business Plans. <a href="http://www.ohio.com/business/27031109.html">http://www.ohio.com/business/27031109.html</a>
<i>Crain's Cleveland Business</i> , April 21, 2008. Hey, It's a start. <a href="http://www.craincleveland.com/apps/pbcs.dll/article?AID=/20080421/SUB1/885288601">http://www.craincleveland.com/apps/pbcs.dll/article?AID=/20080421/SUB1/885288601</a>
<i>Akron Beacon Journal</i> , April, 10, 2008, pages D1. UA wins entrepreneur competition with drug delivery idea. <a href="http://www.ohio.com/news/break_news/17390824.html">http://www.ohio.com/news/break_news/17390824.html</a>
<i>The Plain Dealer</i> , February 9, 2008, pages C1, C3, Online idea could speed food to restaurants. <a href="http://www.cleveland.com/plaindealer/stories/index.ssf?/base/living-1/1202549603323080.xml&amp;coll=2#continue">http://www.cleveland.com/plaindealer/stories/index.ssf?/base/living-1/1202549603323080.xml&amp;coll=2#continue</a>
<i>Akron Beacon Journal</i> , January 27, 2008, pages D1, D4, Many overrate startups' worth. <a href="http://www.ohio.com/business/14462557.html?page=2&amp;c=y">http://www.ohio.com/business/14462557.html?page=2&amp;c=y</a>
<i>Inside Business</i> , January, 2008, pages 43-44. Creating a Land of Opportunity.
<i>Akron Beacon Journal</i> , October 6, 2007, pages D1, D8, College 'boot camp' takes steps to keep entrepreneurs in area. <a href="http://www.ohio.com/news/10282767.html">http://www.ohio.com/news/10282767.html</a>
<i>Inside Business</i> , October, 2007, pages 33-35. Igniting Future Leaders.
<i>The Plain Dealer</i> . August 15, 2007. Section C, pages C1, C6. Students put Entrepreneurship to Work. <a href="http://www.cleveland.com/business/plaindealer/index.ssf?/base/business-3/1187168505257600.xml&amp;coll=2">http://www.cleveland.com/business/plaindealer/index.ssf?/base/business-3/1187168505257600.xml&amp;coll=2</a>
<i>Akron Beacon Journal</i> , August 12, 2007. Section D, pages D1, D4. Entrepreneurs-to-Be Boot Camp. <a href="http://www.ohio.com/business/9109356.html">http://www.ohio.com/business/9109356.html</a>
<i>Crain's Cleveland Business</i> , August 6, 2007. Immersing Students in the Ways of Business. <a href="http://www.craincleveland.com/apps/pbcs.dll/article?AID=/20070806/SUB1/70803019&amp;template=printart">http://www.craincleveland.com/apps/pbcs.dll/article?AID=/20070806/SUB1/70803019&amp;template=printart</a>
<i>Vindy.com</i> . August 4, 2007. 7 Ohio Institutions Fostering Regional Entrepreneurs. <a href="http://www.vindy.com/content/education/321544403578574.php">http://www.vindy.com/content/education/321544403578574.php</a>
<i>Akron Beacon Journal</i> , April 3, 2007. Section D, pages 2. Honored to Speak at UA.
<i>Crain's Cleveland Business</i> , June 19, 2006. On Their Own: NE Ohio Schools Prepare Students to Pursue Entrepreneurial Paths.

Seven teams of five students from each university were taught at Entrepreneurship Immersion Week 2007 and 2008. One of the seven teams, the winner from Case Western Reserve University in 2007, has already created a venture called Fresh Fork Market [http://www.eecneohio.com/acorn.php?page=success\\_stories](http://www.eecneohio.com/acorn.php?page=success_stories). They have already raised over \$250,000 for their venture and it was recently valued at over \$600,000.

Exhibit 8 shows the student feedback that we received from Entrepreneurship Immersion Week.

<b>Exhibit 8: Student Feedback, EIW 2007</b>
I gained so much information. I learned more in this one week than I have in the past three years of school. But this year was really about application. They gave us an opportunity to really apply what we learned. I have a business idea and know I have a sense of where I can go from here.
I want the EEC to know that I was so impressed that there was a filming, that there was an evaluator, that the press was there, the quality of the guest lecturers and the judges. It was very professional <b>and</b> flowed very nicely for a first year program.
It was an incredible experience...I am still so excited about it. Coming into the group, I was the only non business student. I am in Physical Therapy. I learned a lot. I am so glad that I did it... and am even now contemplating becoming a business owner.
I was so sad to leave on Friday...as physically tired I was. I could have stayed for 2 weeks. This is the first time that they are offering this program....it exceeded my expectations immensely.
I would recommend this program to anyone....even people who didn't know that they COULD be entrepreneurs....this program is so special.
I learned that I could start a business. A part of me is afraid to start a successful business... I've been interested in humanities. However, you don't have to have some amazing idea. It was empowering to work with people and learn that it is possible... it was empowering... it's not as hard or daunting... It is doable! To learn that in an experiential way is great!
I just think that the whole opportunity is amazing. Not many kids our age think about coming up with a business... I am so grateful for this. It is a great experience.
I got so much out of the guest entrepreneur lectures. That sort of opportunity doesn't come up very often.
I didn't know what to expect from the Immersion Week, but I couldn't have asked for anything better. I left the program full of ideas and enthusiasm and with an astounding network.
Winning the competition was great, but even better was the opportunity to leave the week with an excited team and a business concept we actually planned on following through with.
Coming into this group, I was the only non-business major, so I was a little intimidated at first. I learned so much during the week and now am even contemplating a business minor of some kind. Our group was outstanding and I am so thankful for having the opportunity like this. The EEC is just an awesome experience.
Not coming from an entrepreneurship background, I felt this program allowed us to get an inside look from experienced professionals. I felt there was a good mix of students from various backgrounds. The guest entrepreneurs were very valuable as well. I came away with a better understanding of my own entrepreneurial spirit. The EEC did a great job organizing and running this event.

Our collaboration with *LaunchTown* created several local university-sponsored business idea competitions, which was followed by a major regional event called *LaunchTown 2008*. Six universities competed at this event, which was sponsored by 34 organizations. PureBalance

Polymeric Solutions, LLC, a business idea from a team of graduate students at the University of Akron, came in first place. PureBalance Polymeric Solutions is an exciting medical high-tech venture that will utilize “innovative polymer technology” to develop a variety of products for multi-billion dollar markets including healthcare, veterinary medicine, and cosmetics. The company is developing efficient therapeutic delivery systems using novel patented polymers to solve everyday healthcare needs. PureBalance’s innovative drug delivery systems will provide highly efficient and cost-effective treatment methods for alleviating a variety of medical conditions to a highly diverse end consumer base.

### **The “Export” Model**

We think that the EEC model is a good one for other potential regional groupings of entrepreneurship centers. In fact, we argue that it is likely to be a superior model for the following reasons.

First, we have maintained a fairly narrow focus geographically. The EEC is focused on Northeast Ohio, meaning the Greater Cleveland-Akron-Canton metropolitan statistical area. It was our feeling that a state-wide focus would be too broad, making it difficult to maintain direct contact and to meet frequently. The EEC meets monthly, and more frequently in the two months leading up to our major events, Entrepreneurship Immersion Week and the *LaunchTown* competition.

Second, we decided to focus our membership on 4-year colleges and universities in the region, having viable entrepreneurship centers. We intentionally excluded community colleges and high schools in order to maintain our focus. Although some argue that “everyone is doing entrepreneurship,” it does not seem plausible for the consortium to try to be “all things to all people.”

Third, we decided at the outset that the consortium needed to have a programmatic focus: the EEC had to develop joint programs that we could do better together than we could do individually. Both Entrepreneurship Immersion Week and *LaunchTown* have this characteristic. This is partially due to the existence of economies of scale in these programs.

### **Lessons Learned**

In the process of starting a regional collaborative such as the EEC, we believe that we have learned some important lessons that other groups might want to bear in mind. They are as follows:

- ◆ Keep your focus! Try to keep on track with your objectives and avoid distractions from other sources. Maintaining your focus is important to the success of the collaboration.

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- ◆ Make sure that everyone “has skin in the game.” Each member of the group needs to be ready to contribute both cash when needed and sweat equity all the time. If a center cannot come up with the needed resources, how will this square with what the other centers are contributing?
  - ◆ Make sure all of the members “like each other.” On one level, we are all competitors (for student enrollees, for outside support, and for media attention), but on another level, we can cooperate to produce regional outcomes with more significant impact on entrepreneurship education. Make certain that the group members can concentrate on the cooperative side rather than on the competitive side.
  - ◆ Keep your dean informed, but do not ask permission! We have all found that our respective deans see the value of our consortium and tend to support and encourage the individual center directors. On the other hand, make certain there are “no surprises.” The deans need to know what’s coming.
  - ◆ Hire competent outside help when necessary. The EEC had an attorney as a Board member, who was able to execute the incorporation of the EEC. Later, we hired an attorney/accountant to prepare our Form 1023, the multi-page document needed to apply for Section 501(c) (3) status under the Internal Revenue Code. We also hired a web professional to design and maintain our website. We also used the services of a business insurance broker to purchase liability coverage for the organization. The point of all this is that “do it yourself” activities may prove to be very costly because we are entrepreneurship educators, not attorneys, accountants, etc. who specialize in particular business services.

### CONCLUSION

We believe that the Entrepreneurship Education Consortium presents a viable model for fruitful inter-university collaboration and cooperation in entrepreneurship programming. The evidence thus far indicates that we have been highly successful after only two years of operation. We suggest that our model may be very useful to other regional groupings of entrepreneurship centers, as long as the geographical spread is not too great and the collaboration maintains its focus. We are now in the process of developing a third program initiative, which we shall undertake if our initial program design appears to be viable and foundation funding is forthcoming. We believe that other program ideas will emerge in the future because the consortium is a great organization to generate and vet program ideas. Certainly our student participants see the EEC and its programs as very useful and highly beneficial to them. We think the region will also reap the benefit of our efforts in the longer run.

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